



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Noteborn et al.

Serial No.: 09/655,109

Filed: September 5, 2000

For: APOPTIN-ASSOCIATING PROTEIN

Confirmation No.: 7279

Examiner: J. Woitach

Group Art Unit: 1632

Attorney Docket No.: 2906-4995US

NOTICE OF EXPRESS MAILING

Express Mail Mailing Label Number: EL994849504US

Date of Deposit with USPS: July 19, 2005

Person making Deposit: Steve Wong

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Supplemental Information Disclosure Statement be entered and the documents listed on attached Form PTO/SB/08 be considered by the Examiner and made of record. Copies of U.S. patents are not being submitted pursuant to M.P.E.P. 609 III A(2). Copies of foreign patent documents and non-patent literature are enclosed pursuant to 37 C.F.R. § 1.98(a)(2).

U.S. Patent Documents

<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
US-6,878,692	04-12-2005	Noteborn et al.
US-5,981,205	11-1999	Hemmings et al.
US-6,809,189 B2	10-26-2004	Noteborn et al.
US 2003/0105315 A1	06-05-2003	Specht et al.

Foreign Patent Documents

<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
EP0921192A1	06-1999	Leadd B.V.
EP0924296A2	06-1999	Leadd B.V.

Other Documents

Zhuang et al., Apoptin, a Protein Derived from Chicken Anemia Virus, Induces p53-independent Apoptosis in Human Osteosarcoma Cells, Cancer Res, February 1995, pp, 486-89, Vol. 55, No. 3.

Pietersen et al., Specific tumor-cell killing with adenovirus vectors containing the apoptin gene, Gene Therapy, 1999, pp. 882-92, Vol. 6.

Bellamy, Christopher O.C., et al., "Cell death in health and disease: the biology and regulation of apoptosis," Seminars in Cancer Biology, vol. 6, pp. 3-16 (1995).

Danen-Van Oorschot, A.A.A.M., et al., "Apoptin induces apoptosis in human transformed and malignant cells but not in normal cells." Proc. Nat'l. Acad Sci. USA vol. 94, pp. 5843-5847 (May 1997).

Danen-van Oorschot, et al., A.A.A.M., "BAG-1 inhibits p53-induced but not apoptin-induced apoptosis," Apoptosis, vol. 2, No. 4, pp 395-402 (1997).

Duke, Richard C., et al, "Cell Suicide in Health and Disease," Scientific American, pp 80-87 (Dec. 1996).

Noteborn, M.H.M., et al., "A Single Chicken Anemia Virus Protein Induces Apoptosis," Journal of Virology, vol. 68, No. 1, pp. 346-351 (Jan. 1994).

Noteborn, M.H.M., et al., "Characterization of Cloned Chicken Anemia Virus DNA That Contains All Elements for the Infectious Replication Cycle." *Journal of Virology*, vol. 65, No. 6, pp. 3131-3139 (Jun. 1991).

Noteborn, Mathieu H.M., et al, "Chicken Anemia Virus Induction of Apoptosis by a Single Protein of a Single-Stranded DNA Virus," *Seminars in Virology*. vol 8, pp 497-504 (1998).

Noteborn, Mathieu H.M., et al., "Simultaneous expression of recombinant baculovirus-encoded chicken anaemia virus (CAV) proteins VP1 and VP2 is required for formation of the CAV-specific neutralizing epitope," *Journal of General Virology*, vol. 79, pp. 3073-3077 (1998).

Paulovich, Amanda G , et al , "When Checkpoints Fail," *Cell*, vol. 88, pp 315-321 (Feb. 7, 1997).

Steller Hermann, "Mechanisms and Genes of Cellular Suicide," *Science*, vol. 267, pp 1445-1449 (Mar. 10, 1995).

Teodoro, Jose G, et al , "Regulation of Apoptosis by Viral Gene Products," *Journal of Virology*, vol. 71, No 3, pp 1739-1746 (Mar. 1997).

Thompson, Craig B, "Apoptosis in the Pathogenesis and Treatment of Disease," *Science*, vol. 267, pp 1456-1462 (Mar. 10, 1995).

Strausberg, Robert, "qy85c09.x1 NCI_CGAP_Brn25 *Homo sapiens* cDNA clone Image:2018800 3', mRNA sequence," Jan. 7, 1999, Accession No. AI360308.

Zhao S., "Use of BAC End Sequences from Library RPCI-11 for Sequence-Ready Map building," March 15, 1999, ACCESSION NUMBER AQ382839.

Strausberg, Robert, "wd70d04.x1 NCI_CGAP_Lu24 *Homo sapiens* cDNA clone IMAGE:2336935 3', mRNA sequence," June 3, 1999, ACCESSION NUMBER AI692778.

Benet et al., pp. 3-32, in *The Pharmacological Basis of Therapeutics*, 8th ed., McGraw-Hill, Inc., New York, 1990.

Jain et al., Vascular and interstitial barriers to delivery of therapeutic agents in tumors, *Cancer and Metastasis Reviews*, 1990, pp. 253-266, Vol. 9.

Jain R.K, Delivery of Molecular Medicine to Solid Tumors, 1996, *Science*, pp. 1079-1080, Vol. 271.

Dermer, Another Anniversary for the War on Cancer, Biotechnology, 1994, pp. 320, Vol. 12.

Database GenEmbl on GenCore version 4.5, Accession No. AX015052, Oct. 1999.

Strausberg R. Database EST on GenCore version 4.5, Accession No. BE746443, Sep. 2000.

Danen-Van Oorschot et al., BCL-2 Stimulated Apoptin-induced Apoptosis, pp. 245-249 in Drug Resistance in Leukemia and Lymphoma III, ed. Kaspers et al., Kluwer Academic/Plenum Publishers, New York, 1999.

Noteborn et al., Apoptin-induced apoptosis: potential for antitumor therapy, Drug Resistance Updates, 1998, pp. 99-103, Vol. 1.

Noteborn et al., Apoptin induces apoptosis in transformed cells specifically: Potentials for an antitumor therapy, Biogenic Amines, 1998, pp. 73-91, Vol. 15, No. 1.

Abstract XP-002140967, May 1999.

Abstract XP-002140968, May 1995.

Abstract XP-002140969, 2000.

McDonnell et al., "Implications of apoptotic cell death regulation in cancer therapy," Cancer Biology, 1995, pp. 53-60, vol. 6.

Mullersman et al., "The PHD finger: implications for chromatin-mediated transcriptional regulation," TIBS 20, Feb. 1995, pp. 56-59.

Jacobson et al., "Modifying chromatin and concepts of cancer," Chromosomes and expression mechanisms, pp. 175-184.

Lu et al., "A Novel Gene (PLU-1) Containing Highly Conserved Putative DNA/Chromatin Binding Motifs Is Specifically Up-regulated in Breast Cancer," The Journal of Biological Chemistry, 1999, pp. 15633-15645, Vol. 274, No. 22.

Zhuang et al., "Apoptin, a Protein Encoded by Chicken Anemia Virus, Induces Cell Death in Various Human Hematologic Malignant Cells in vitro," Leukemia, vol. 9, Suppl. 1, pp. S118-S120, 1995.

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, Applicants submit the following listed copending applications naming a common inventor(s):

Attorney Docket No.: 2183.01-4999US
Serial No.: 09/403,213
Filing Date: 6/22/2000
Title: A GENE DELIVERY VEHICLE EXPRESSING THE APOPTOSIS-INDUCING PROTEINS VP2 AND/OR APOPTIN

Attorney Docket No.: 2906-5008US
Serial No.: 09/555,981
Filing Date: 8/1/2000
Title: MOLECULES INTERACTING WITH APOPTIN

Attorney Docket No.: 2906-4997US
Serial No.: 09/733,416
Filing Date: 12/8/2000
Title: APOPTIN-ASSOCIATING PROTEIN

Attorney Docket No.: 2906-4922US
Serial No.: 09/740,676
Filing Date: 12/18/2000
Title: CHICKEN ANEMIA VIRUS MUTANTS AND VACCINES AND USES BASED ON THE VIRAL PROTEINS VP1, VP2, AND VP3 OR SEQUENCES OF THAT VIRUS CODING THEREFOR

Attorney Docket No.: 2906-4992US
Serial No.: 09/889,430
Filing Date: 1/17/2002
Title: USE OF APOPTOSIS INDUCING AGENTS IN THE TREATMENT OF (AUTO) IMMUNE DISEASES

Attorney Docket No.: 2906-5001.1US
Serial No.: 09/949,780
Filing Date: 9/10/2001
Title: A DELIVERY METHOD FOR THE TUMOR SPECIFIC APOPTOSIS INDUCING ACTIVITY OF APOPTIN

Attorney Docket No.: 2906-4996.1US
Serial No.: 10/083,849
Filing Date: 10/19/2001
Title: MODIFICATIONS OF APOPTIN

Attorney Docket No.: 2906-4819.1US
Serial No.: 10/113,790
Filing Date: 3/29/2002
Title: FUSION PROTEINS FOR SPECIFIC TREATMENT OF CANCER AND AUTOIMMUNE DISEASES

Attorney Docket No.: 2906-5334US
Serial No.: 10/126,474
Filing Date: 4/19/2002
Title: APOPTOSIS INDUCING PROTEINACEOUS SUBSTANCE

Attorney Docket No.: 2906-4918.1US
Serial No.: 10/256,041
Filing Date: 9/26/2002
Title: CLONING OF CHICKEN ANEMIA VIRUS DNA

Attorney Docket No.: 2906-4992.1US
Serial No.: 11/067,001
Filing Date: 2/25/2005
Title: USE OF APOPTOSIS INDUCING AGENTS IN THE TREATMENT OF (AUTO) IMMUNE DISEASES

This Information Disclosure Statement is believed to be filed before the mailing date of a first Office Action on the merits; therefore, no fee is due.

Serial No.: 09/655,109

Respectfully submitted,



Allen C. Turner

Registration No. 33,041

Attorney for Applicant(s)

TRASKBRITT, P.C.

P.O. Box 2550

Salt Lake City, Utah 84110-2550

Telephone: 801-532-1922

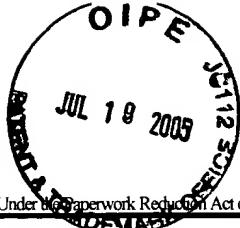
Date: May 5, 2005

ACT/bv

Enclosures: Form PTO/SB/08

Copy of documents cited

Document in ProLaw



PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Substitute for form 1449A/PTO		<i>Complete if Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	09/655,109
<i>(use as many sheets as necessary)</i>		Filing Date	September 5, 2000
		First Named Inventor	Noteborn et al.
		Group Art Unit	1632
		Examiner Name	J. Woitach
Sheet	1	of	4
		Attorney Docket Number	2906-4995US

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

2

of

4

		<i>Complete if Known</i>	
Application Number		09/655,109	
Filing Date		September 5, 2000	
First Named Inventor		Noteborn et al.	
Group Art Unit		1632	
Examiner Name		J. Woitach	
Attorney Docket Number		2906-4995US	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Zhuang et al., Apoptin, a Protein Derived from Chicken Anemia Virus, Induces p53-independent Apoptosis in Human Osteosarcoma Cells, Cancer Res, February 1995, pp. 486-89, Vol. 55, No. 3.	
		Pietersen et al., Specific tumor-cell killing with adenovirus vectors containing the apoptin gene, Gene Therapy, 1999, pp. 882-92, Vol. 6.	
		Bellamy, Christopher O.C., et al., "Cell death in health and disease: the biology and regulation of apoptosis," Seminars in Cancer Biology, vol. 6, pp. 3-16 (1995).	
		Danen-Van Oorschot, A.A.A.M., et al., "Apoptin induces apoptosis in human transformed and malignant cells but not in normal cells." Proc. Nat'l. Acad Sci. USA vol. 94, pp. 5843-5847 (May 1997).	
		Danen-van Oorschot, et al., A.A.A.M., "BAG-1 inhibits p53-induced but not apoptin-induced apoptosis," Apoptosis, vol. 2, No. 4, pp 395-402 (1997).	
		Duke, Richard C., et al, "Cell Suicide in Health and Disease," Scientific American, pp 80-87 (Dec. 1996).	
		Noteborn, M.H.M., et al., "A Single Chicken Anemia Virus Protein Induces Apoptosis," Journal of Virology, vol. 68, No. 1, pp. 346-351 (Jan. 1994).	
		Noteborn, M.H.M., et al., "Characterization of Cloned Chicken Anemia Virus DNA That Contains All Elements for the Infectious Replication Cycle." Journal of Virology, vol. 65, No. 6, pp. 3131-3139 (Jun. 1991).	
		Noteborn, Mathieu H.M., et al, "Chicken Anemia Virus Induction of Apoptosis by a Single Protein of a Single-Stranded DNA Virus," Seminars in Virology, vol 8, pp 497-504 (1998).	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

3 of 4

<i>Complete if Known</i>	
Application Number	09/655,109
Filing Date	September 5, 2000
First Named Inventor	Noteborn et al.
Group Art Unit	1632
Examiner Name	J. Woitach
Attorney Docket Number	2906-4995US

NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Cite No. ¹	
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Noteborn, Mathieu H.M., et al., "Simultaneous expression of recombinant baculovirus-encoded chicken anaemia virus (CAV) proteins VP1 and VP2 is required for formation of the CAV-specific neutralizing epitope," Journal of General Virology, vol. 79, pp. 3073-3077 (1998).
		Paulovich, Amanda G , et al , "When Checkpoints Fail," Cell, vol. 88, pp 315-321 (Feb. 7, 1997).
		Steller Hermann, "Mechanisms and Genes of Cellular Suicide," Science, vol. 267, pp 1445-1449 (Mar. 10, 1995).
		Teodoro, Jose G, et al , "Regulation of Apoptosis by Viral Gene Products," Journal of Virology, vol. 71, No 3, pp 1739-1746 (Mar. 1997).
		Thompson, Craig B, "Apoptosis in the Pathogenesis and Treatment of Disease," Science, vol. 267, pp 1456-1462 (Mar. 10, 1995).
		Strausberg, Robert, "qy85c09.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2018800 3', mRNA sequence," Jan. 7, 1999, Accession No. AI360308.
		Zhao S., "Use of BAC End Sequences from Library RPCI-11 for Sequence-Ready Map building," March 15, 1999, ACCESSION NUMBER AQ382839.
		Strausberg, Robert, "wd70d04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2336935 3', mRNA sequence," June 3, 1999, ACCESSION NUMBER AI692778.
		Benet et al., pp. 3-32, in The Pharmacological Basis of Therapeutics, 8th ed., McGraw-Hill, Inc., New York, 1990.
		Jain et al., Vascular and interstitial barriers to delivery of therapeutic agents in tumors, Cancer and Metastasis Reviews, 1990, pp. 253-266, Vol. 9.
		Jain R.K, Delivery of Molecular Medicine to Solid Tumors, 1996, Science, pp. 1079-1080, Vol. 271.
		Dermer, Another Anniversary for the War on Cancer, Biotechnology, 1994, pp. 320, Vol. 12.

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

4

of

4

Complete if Known

Application Number	09/655,109
Filing Date	September 5, 2000
First Named Inventor	Noteborn et al.
Group Art Unit	1632
Examiner Name	J. Woitach
Attorney Docket Number	2906-4995US

NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Cite No. ¹	
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Database GenEmbl on GenCore version 4.5, Accession No. AX015052, Oct. 1999.
		Strausberg R. Database EST on GenCore version 4.5, Accession No. BE746443, Sep. 2000.
		Danen-Van Oorschot et al., BCL-2 Stimulated Apoptin-induced Apoptosis, pp. 245-249 in Drug Resistance in Leukemia and Lymphoma III, ed. Kaspers et al., Kluwer Academic/Plenum Publishers, New York, 1999.
		Noteborn et al., Apoptin-induced apoptosis: potential for antitumor therapy, Drug Resistance Updates, 1998, pp. 99-103, Vol. 1.
		✓Noteborn et al., Apoptin induces apoptosis in transformed cells specifically: Potentials for an antitumor therapy, Biogenic Amines, 1998, pp. 73-91, Vol. 15, No. 1.
		Abstract XP-002140967, May 1999.
		Abstract XP-002140968, May 1995.
		Abstract XP-002140969, 2000.
		McDonnell et al., "Implications of apoptotic cell death regulation in cancer therapy," Cancer Biology, 1995, pp. 53-60, vol. 6.
		Mullersman et al., "The PHD finger: implications for chromatin-mediated transcriptional regulation," TIBS 20, Feb. 1995, pp. 56-59.
		Jacobson et al., "Modifying chromatin and concepts of cancer," Chromosomes and expression mechanisms, pp. 175-184.
		Lu et al., "A Novel Gene (PLU-1) Containing Highly Conserved Putative DNA/Chromatin Binding Motifs Is Specifically Up-regulated in Breast Cancer," The Journal of Biological Chemistry, 1999, pp. 15633-15645, Vol. 274, No. 22.
		Zhuang et al., "Apoptin, a Protein Encoded by Chicken Anemia Virus, Induces Cell Death in Various Human Hematologic Malignant Cells in vitro," Leukemia, vol. 9, Suppl. 1, pp. S118-S120, 1995.

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.